IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Inventor(s): Mooi Choo Chuah et al.
Case: Chuah 73-19 (LCNT/125735)
Serial No.: 10/658,674 **Group Art Unit:** 2617
Filed: September 9, 2003 **Confirmation #:** 2217
Examiner: Huynh, Chuck
Title: COMMUNICATIONS PROTOCOL BETWEEN A GATEWAY AND AN ACCESS POINT

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APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2617, mailed June 16, 2010, rejecting claims 1-7.

In the event that an extension of time is required for this Appeal Brief to be considered timely, and a petition therefor does not otherwise accompany this Appeal Brief, any necessary extension of time is hereby petitioned for.

The $540 Appeal Brief fee was paid with the filing of Appellants' first Appeal Brief. Appellants do not believe that any other fees are due. In the event Appellants are incorrect, the Commissioner is authorized to charge any other fees to Deposit Account No. 50-4802/**ALU/125735**.

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Real Party in Interest

The real party in interest is Alcatel-Lucent.

Related Appeals and Interferences

Appellants assert that no appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-7 are pending in the application. Claims 1-32 were originally presented in the application. Claims 8-32 have been cancelled. Claims 1-5 and 7 have been amended. The final rejection of claims 1-7 is appealed.

Status of Amendments

All claim amendments have been entered.

Summary of Claimed Subject Matter

Embodiments of the present invention are generally directed to a method for registering at least one wireless access point, where the at least one wireless access point is registered in a wireless area network (WAN), such as a wireless local area network (WLAN), wireless personal area network (WPAN), or other similar wireless area networks.

Claim 1 describes one embodiment of a method for registering at least one wireless access point in a wireless area network (WAN). A discovery message is broadcast from a WAN gateway to at least one wireless access point in the WAN. An access point registration request is received at the WAN gateway. The access point registration request is received from at least one wireless access point receiving the discovery message. The access point registration request includes access point location, IP address, MAC address, radio type, and power level information of the wireless access point. The information of the access point registration request is stored at the WAN gateway.

Claim 3 describes one embodiment of a method for registering a wireless access point in a wireless area network (WAN). A gateway discovery query message is broadcast from the wireless access point. At least one service discovery message is received from at least one WAN gateway, respectively. The wireless access point selects an appropriate WAN gateway in an instance where more than one service discovery message is received. An access point registration request is sent to the selected WAN gateway. The access point registration request includes access point location, IP address, MAC address, radio type, and power level information of the wireless access point.

For the convenience of the Board of Patent Appeals and Interferences, Appellants' independent claims 1 and 3 are presented below with citations to various figures and appropriate citations to at least one portion of the specification for elements of the appealed claims.

Claim 1 recites (with references to illustrative portions of the specification added):

> 1. (previously presented) A method (500) for registering at least one wireless access point (138) in a wireless area network (WAN) (130), comprising: (Pg. 4, Line 15 – Pg. 7, Line 14)
>
> broadcasting, (504) from a WAN gateway (136), a discovery message toward said at least one wireless access point (138) in said WAN (130); (Pg. 9, Lines 25 – 26)
>
> receiving (516) at said WAN gateway (136), from at least one wireless access point (138) receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point (138); and (Pg. 11, Lines 13 – 14; Pg. 9, Line 31 – Pg. 10, Line 31)
>
> storing (518) said access point registration request information at said WAN gateway (136). (Pg. 11, Lines 14 – 15)

Claim 3 recites (with references to illustrative portions of the specification added):

> 3. (previously presented) A method (600) for registering a wireless access point (138) in a wireless area network (WAN) (130), comprising: (Pg. 4, Line 15 – Pg. 7, Line 14)
>
> broadcasting (604) a gateway discovery query message from said wireless access point (138); (Pg. 11, Lines 29 – 30)
>
> receiving (614), from at least one WAN gateway (136), a respective service discovery message; (Pg. 12, Lines 11 – 13)
>
> selecting (616, 618), by said wireless access point (138), an appropriate WAN gateway (136) in an instance where more than one service discovery message is received; and (Pg. 12, Lines 13 – 22)
>
> sending (620, 622, 628) an access point registration request comprising access point location, IP address, MAC address, radio type,

and power level information of said wireless access point (138) toward said selected WAN gateway (136). (Pg. 12, Lines 23 – 28; Pg. 9, Line 31 – Pg. 10, Line 31)

Grounds of Rejection to be Reviewed on Appeal

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,574,208 to Matturi et al. (hereinafter "Matturi") in view of U.S. Patent No. 7,295,524 to Gray (hereinafter "Gray").

Arguments

Rejection of Claims Under 35 U.S.C. 103(a)

I. Rejection of Claims 1 – 2 Under 35 U.S.C. 103(a)

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Gray. The rejection is traversed.

A. The Examiner failed to establish a prima facie case of obviousness of Appellants' claim 1, because a combination of Matturi and Gray does not teach or suggest all of the elements of Appellants' independent claim 1.

Appellants initially[1] show error in the rejection of Appellants' independent claim 1 in that the Examiner failed to establish a factual basis to support the legal conclusion of obviousness[2]. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988).

According to MPEP §2143, in order to establish a *prima facie* case of obviousness under §103, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Final Office Action fails to establish a *prima facie* case of obviousness, because the suggested combination of Matturi and Gray does not teach or suggest all of the elements of Appellants' independent claim 1.

Matturi discloses establishment of a connection between network elements in a radio system comprising as network elements one or more base stations, a base station

[1] In the Response filed March 19, 2010, Appellants argued that the claims were erroneously rejected.
[2] In rejecting claims under 35 U.S.C. §103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443,1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The burden of coming forward with evidence or argument shifts to the Appellant only if the Examiner's burden is met. Id. To establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03. See also. In re Royka, 490 F.2d 580 (C.C.P.A. 1974). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

controller and a network management system that are operatively interconnected by means of telecommunication connections. (See Matturi, Abstract).

Gray discloses management of wireless computer network environments using a management platform. The management includes WLAN airspace mapping, including allowing any conforming access point the ability to routinely scan its airspace, collect data on all operating frequencies, and report the information back to the management platform. The management platform also analyzes information received from the access points under management to detect and report the state of the computer network environment. (See Gray, Abstract).

1. Matturi and Gray, alone or in combination, fail to teach or suggest a WAN gateway and, thus, fail to teach or suggest any of the limitations of Appellants' claim 1.

Appellants submit that Matturi is devoid of any teaching or suggestion of a wireless area network (WAN). Rather, Matturi is directed toward a cellular wireless network. A cellular wireless network, as disclosed in Matturi, is fundamentally different than a wireless area network (WAN), in terms of the types of wireless technology utilized, the types of network elements involved, interaction between network elements, types of backhaul technologies used, and various other characteristics. Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, Appellants submit that Matturi fails to teach or suggest the wireless access point or WAN gateway of Appellants' claim 1.

Appellants submit that Gray is devoid of any teaching or suggestion of a WAN gateway. Rather, although Gray discloses management of wireless computer network environments, Gray merely discloses interaction between wireless access points and an airspace management platform 56 that discovers functionality and other parameters associated with registered wireless access points and populates a database with information on each registered wireless access point. (See Gray, Col. 6, Lines 13 – 17). The airspace management platform 56 of Gray is not a WAN gateway. Gray is devoid of any teaching or suggestion of a WAN gateway as recited in Appellants' claim 1.

Thus, Matturi and Gray, alone or in combination, fail to teach or suggest a WAN gateway and, thus, fail to teach or suggest any of the limitations of Appellants' claim 1.

2. Matturi and Gray, alone or in combination, fail to teach or suggest the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

a. Matturi

Matturi fails to teach or suggest at least the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

In the Final Office Action, the Examiner acknowledges that Matturi fails to teach or suggest this limitation of Appellants' claim 1. This is acknowledged in the Claim Rejections section, on Pgs. 22 – 23, of the Final Office Action, as well in the Response to Arguments section, on Pgs. 3 – 4 of the Final Office Action.

Furthermore, Appellants previously provided an explanation of the failure of Matturi to teach or suggest this limitation of Appellants' claim 1. Namely, Appellants' basis for the assertion that Matturi fails to teach or suggest this limitation may be found at least on Pgs. 5-6 of Appellants' Response, dated March 19, 2010, to the Office Action, dated January 26, 2010. For purposes of completeness, relevant portions of Appellants' explanation of the failure of Matturi to teach or suggest this limitation of Appellants' claim 1 are provided again below.

First, Appellants submit that Matturi is devoid of any teaching or suggestion of a wireless area network (WAN). Rather, Matturi is directed toward a cellular wireless network. A cellular wireless network, as disclosed in Matturi, is fundamentally different than a wireless area network (WAN), in terms of the types of wireless technology

utilized, the types of network elements involved, interaction between network elements, types of backhaul technologies used, and various other characteristics, such that the Examiner's attempted application of the teachings of Matturi to Appellants' claim 1 is improper. As noted above, Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, Appellants submit that Matturi fails to teach or suggest the wireless access point or WAN gateway of Appellants' claim 1, much less the arrangement of Appellants' claim 1 in which an access point registration request is received at a WAN gateway from at least one wireless access point receiving a discovery message from the WAN gateway, or the specific wireless access point information of Appellants' claim 1.

Second, Appellants submit that, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants' claim 1 (which Appellants maintain that they cannot), Matturi still would fail to teach or suggest receiving at a WAN gateway, from at least one wireless access point receiving a discovery message, an access point registration request including access point registration information. In the Final Office Action, the Examiner asserts that the base station controller and base station of Matturi teach the WAN gateway and wireless access point of Appellants' claim 1, respectively. (See Final Office Action, Pg. 22). Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 1, in order for Matturi to teach this limitation of Appellants' claim 1, Matturi would need to disclose receiving, at the base station controller, from at least one base station receiving a discovery message, an access point registration request including access point registration information. However, this is not taught or suggested in Matturi. Rather, Matturi merely discloses that a base station controller transmits a request message to the base station. Thus, Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 1, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants' claim 1, Matturi still would fail to teach or suggest receiving at a WAN gateway, from at least one wireless access point receiving a discovery message, an access point registration request including access point registration information, as claimed in Appellants' claim 1.

Third, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 1 (which, again, Appellants maintain that they cannot), Matturi still would fail to teach or suggest receiving, at a WAN gateway from at least one wireless access point receiving a discovery message, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of the wireless access point, as claimed in Appellants' claim 1. Matturi is devoid of any teaching or suggestion of access point location, IP address, MAC address, radio type, and power level information. Rather, Matturi merely includes a general statement indicating that identification information and hardware information is sent from the base station to the base station controller. (See Matturi, Col. 7, Lines 38 – 39). Thus, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 1, Matturi still would fail to teach or suggest receiving, at a WAN gateway from at least one wireless access point receiving a discovery message, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of the wireless access point, as claimed in Appellants' claim 1.

Thus, at least for these reasons, and as acknowledged by the Examiner, Matturi fails to teach or suggest at least the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

b. Gray

Gray fails to teach or suggest at least the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

First, Appellants submit that Gray fails to teach or suggest "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request," as claimed in Appellants' claim 1.

Rather, with respect to registration and management of access points, Gray merely states that a network administrator registers at least one wireless access point by entering or discovering information unique to the access point. (See Gray, Col. 5, Lines 62 – 64). With respect to discovery of information, Gray merely states that the airspace management platform 56 discovers functionality and other parameters associated with registered wireless access points and populates a database with information on each registered wireless access point. (See Gray, Col. 6, Lines 13 – 17).

Appellants submit that the airspace management platform 56 of Gray is not a WAN gateway. Gray is devoid of any teaching or suggestion of a WAN gateway as recited in Appellants' claim 1.

Thus, Gray fails to teach or suggest "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request," as claimed in Appellants' claim 1.

Second, Appellants submit that Gray fails to teach or suggest "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

In the Final Office Action, the Examiner cites specific portions of Gray (namely, Col. 5, Lines 60 – 67 and Col. 7, Lines 30-53), asserting that these portions of Gray disclose this limitation of Appellants' claim 1. Appellants disagree.

Appellants submit that the first portion of Gray cited by the Examiner (namely, Col. 5, Lines 60 – 67), which discusses registration and management of access points, merely states that a network administrator registers an access point by entering or discovering information unique to the access point, where the information includes "...BSSID or Wireless MAC address, LAN MAC address, and LAN IP address." This portion of Gray is devoid of any teaching or suggestion of an access point registration request including access point location, IP address, MAC address, radio type, *and* power

level information of a wireless access point. Appellants note that although this portion of Gray mentions MAC and IP addresses, this portion of Gray clearly is devoid of any teaching or suggestion of access point location, radio type, or power level information. Thus, the first portion of Gray cited by the Examiner fails to teach or suggest an access point registration request including access point location, IP address, MAC address, radio type, *and* power level information of a wireless access point, as recited in Appellants' claim 1.

Appellants submit that the second portion of Gray cited by the Examiner (namely, Col. 7, Lines 30-53) merely describes configuration of groups in order to simplify administration of wireless LAN functionality, such as where users associated with a "sales" group may configure their wireless client devices to associate with access points having an SSID set to "sales." This portion of Gray is devoid of any teaching or suggestion of an access point registration request or access point location, IP address, MAC address, radio type, and power level information of a wireless access point, much less an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as recited in Appellants' claim 1.

In the Final Office Action, with respect to the "access point location" of Appellants' claim 1, the Examiner asserts that the "access point location" is disclosed at Col. 6, Lines 46 – 47 of Gray, which discuss latitude and longitude of an access point. (See Final Office Action, Pg. 23 and Pg. 6). In response, Appellants note that Appellants' claim 1 is a method for registering at least one wireless access point in a wireless area network (WAN), including a step of receiving an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point. By contrast, the cited portion of Gray merely discloses discovery of functionality associated with wireless access points that have already been registered (i.e., "registered wireless access points"). This is indicated at least at Col. 6, Lines 13 – 17 of Gray. Gray fails to teach or suggest receiving a registration request including an access point location during a process for registering at least one access point. Thus, contrary to the Examiner's assertions, Gray does not teach

or suggest receiving an access point registration request including access point location information, as claimed within the context of Appellants' claim 1.

In the Final Office Action, with respect to the "radio type" of Appellants' claim 1, the Examiner asserts that the "radio type" is disclosed at Col. 5, Lines 17 – 21 and Col. 6, Line 46 of Gray. (See Final Office Action, Pg. 23 and Pg. 6). Appellants disagree. In response, Appellants submit that neither of the portions of Gray cited by the Examiner teaches or suggests receiving an access point registration request including radio type information. The first portion of Gray cited by the Examiner as disclosing radio type information (namely, Col. 5, Lines 17 – 21) merely discloses information associated with a product type of a wireless access point (which Gray defines as being the Manufacturer and Product name of the wireless access point), not the radio type of the radio used by the wireless access point. Furthermore, although the second portion of Gray cited by the Examiner (namely, Col. 6, Line 46) references use of 802.11 technology, this portion of Gray is devoid of any teaching or suggestion that radio type information of a wireless access point is determined or received, much less that radio type information of a wireless access point is received as part of an access point registration request. Appellants submit that the mere reference to 802.11 technology within the Gray reference simply does not teach or suggest receiving an access point registration request including radio type information. Moreover, this portion of Gray suffers from the same deficiency as described above with respect to the access point location (namely, the product type is discovered for a wireless access point that has already been registered, not during a process for registering a wireless access point). Thus, contrary to the Examiner's assertions, Gray does not teach or suggest receiving an access point registration request including radio type information, as claimed within the context of Appellants' claim 1.

In the Final Office Action, with respect to the "power level" of Appellants' claim 1, the Examiner asserts that the "power level" is disclosed by Element 7 FIG. 7B of Gray. (See Final Office Action, Pg. 23 and Pg. 6). Appellants disagree. In response, Appellants submit that the cited portion of Gray fails to teach or suggest receiving an access point registration request including power level information. Rather, the cited portion of Gray merely depicts a frame structure having a Power Management field. Gray is devoid of any teaching or suggestion that the Power Management field of the data structure

specifies a power level or power level information. Furthermore, although other portions of Gray disclose power level management using history information (see Gray, Col. 12, Lines 6 – 9), these other portions of Gray also fail to teach or suggest receiving an access point registration request including power level information. Thus, contrary to the Examiner's assertions, Gray does not teach or suggest receiving an access point registration request including power level information, as claimed within the context of Appellants' claim 1.

Thus, at least for these reasons, Gray fails to teach or suggest the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

c. Conclusion

Thus, since Matturi and Gray each fail to teach or suggest the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," a combination of Matturi and Gray (assuming *arguendo* that such a combination is possible) fails to teach or suggest the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

B. The Examiner failed to establish a prima facie case of obviousness of Appellants' claim 1, because the Examiner failed to consider all of the words of Appellants' claim 1 in judging the patentability of Appellants' claim 1.

Appellants note that all words in a claim must be considered in judging the patentability of that claim against the prior art. (See MPEP §2143.03). One cannot divine claim meaning in a vacuum. *Philips v. AWH Corporation* (Fed. Cir. July 12, 2005).

Appellants submit that the Examiner has failed to consider all of the words of Appellants' claim 1 in judging the patentability of Appellants' claim 1.

Namely, the Examiner has failed to consider at least the limitation of "an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point."

In the Claim Rejections section of the Final Office Action, the Examiner initially indicates that the entire limitation is being considered; however, the details of the rejection illustrate that the Examiner does not consider all of the words. Namely, in explaining the rejection, the Examiner states that "Gray does disclose...access point location..., radio type, or power level information...." (See Final Office Action, Pg. 23, Emphasis added). Similarly, in the Response to Arguments section of the Final Office Action, the Examiner states that "Gray does disclose...access point location..., radio type, or power level information...." (See Final Office Action, Pg. 6, Emphasis added). In other words, in each of these sections of the Final Office Action, it is clear that the Examiner fails to list all of the types of access point information listed in Appellants' claim 1 and, further, for the types of access point information that the Examiner does address, the Examiner merely lists them in the alternative rather than considering the claimed embodiment in which the access point registration request includes access point location, IP address, MAC address, radio type, *and* power level information of a wireless access point.

Thus, the Examiner failed to establish a prima facie case of obviousness of Appellants' claim 1, because the Examiner failed to consider all of the words of Appellants' claim 1 in judging the patentability of Appellants' claim 1.

C. Conclusion

As such, independent claim 1 is patentable over Matturi in view of Gray under 35 U.S.C. 103(a). Furthermore, claim 2 depends from independent claim 1 while adding additional elements and, therefore, this dependent claim also is non-obvious and is patentable over Matturi in view of Gray under 35 U.S.C. §103(a) for at least the same reasons discussed above in regards to independent claim 1.

As such, Appellants' claims 1-2 are patentable over Matturi in view of Gray under

35 U.S.C. §103(a). Therefore, the rejection should be withdrawn.

II. Rejection of Claims 3 – 7 Under 35 U.S.C. 103(a)

Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Gray. The rejection is traversed.

A. The Examiner failed to establish a prima facie case of obviousness of Appellants' claim 3, because a combination of Matturi and Gray does not teach or suggest all of the elements of Appellants' independent claim 3.

Appellants initially show error in the rejection of Appellants' independent claim 3 in that the Examiner failed to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988).

According to MPEP §2143, in order to establish a *prima facie* case of obviousness under §103, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Final Office Action fails to establish a *prima facie* case of obviousness, because the suggested combination of Matturi and Gray does not teach or suggest all of the elements of Appellants' independent claim 3.

Matturi discloses establishment of a connection between network elements in a radio system comprising as network elements one or more base stations, a base station controller and a network management system that are operatively interconnected by means of telecommunication connections. (See Matturi, Abstract).

Gray discloses management of wireless computer network environments using a management platform. The management includes WLAN airspace mapping, including allowing any conforming access point the ability to routinely scan its airspace, collect data on all operating frequencies, and report the information back to the management platform. The management platform also analyzes information received from the access points under management to detect and report the state of the computer network environment. (See Gray, Abstract).

1. Matturi and Gray, alone or in combination, fail to teach or suggest a WAN gateway and, thus, fail to teach or suggest any of the limitations of Appellants' claim 3.

Appellants submit that Matturi is devoid of any teaching or suggestion of a wireless area network (WAN). Rather, as described hereinabove with respect to Appellants' claim 1, Matturi is directed toward a cellular wireless network. Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, Appellants submit that Matturi fails to teach or suggest the wireless access point or WAN gateway of Appellants' claim 3.

Appellants submit that Gray is devoid of any teaching or suggestion of a WAN gateway. Rather, although Gray discloses management of wireless computer network environments, Gray merely discloses interaction between wireless access points and an airspace management platform 56 that discovers functionality and other parameters associated with registered wireless access points and populates a database with information on each registered wireless access point. (See Gray, Col. 6, Lines 13 – 17). The airspace management platform 56 of Gray is not a WAN gateway. Gray is devoid of any teaching or suggestion of a WAN gateway as recited in Appellants' claim 3.

Thus, Matturi and Gray, alone or in combination, fail to teach or suggest a WAN gateway and, thus, fail to teach or suggest any of the limitations of Appellants' claim 3.

2. Matturi and Gray, alone or in combination, fail to teach or suggest the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received."

a. Matturi

Matturi fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

First, Appellants submit that Matturi is devoid of any teaching or suggestion of a wireless area network (WAN). Rather, as described hereinabove with respect to Appellants' claim 1, Matturi is directed toward a cellular wireless network. As noted above, Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, Appellants submit that Matturi fails to teach or suggest the wireless access point or WAN gateway of Appellants' claim 3, much less the arrangement of Appellants' claim 3 in which a gateway discovery query message is broadcast from a wireless access point, at least one service discovery message is received from respective at least one WAN gateway, and the wireless access point selects appropriate WAN gateway in an instance where more than one service discovery message is received, as claimed in Appellants' claim 3.

Second, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 3 (which Appellants maintain that they cannot), Matturi still would fail to teach or suggest selecting, by a wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message from more than one WAN gateway is received by the wireless access point, as claimed in Appellants' claim 3. In the Final Office Action, the Examiner asserts that the base station controller and base station of Matturi teach the WAN gateway and wireless access point of Appellants' claim 3, respectively. (See Final Office Action, Pgs. 24 – 25). Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 3, in order for Matturi to disclose this limitation of Appellants' claim 3, Matturi would need to disclose that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller. Matturi, however, fails to teach or suggest that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller. Rather, Matturi merely discloses that: (1) when a base station controller detects that it has been provided with identification information of a base station not yet connected to the base station, the base station controller transmits a link protocol link establishment request message, and (2) when the new base station connected to the system receives the link protocol link

establishment request message, the base station transmits an acknowledgment message to the base station controller. (See Matturi, Col. 7, Lines 1 – 30). Matturi is devoid of any teaching or suggestion that a base station controller is selected, much less that a base station controller is selected by a base station in an instance when more than one service delivery message is received. Thus, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 3 (which Appellants maintain that they cannot), since Matturi is devoid of any teaching or suggestion that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller, Matturi still would fail to teach or suggest selecting, by a wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message from more than one WAN gateway is received by the wireless access point, as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner cites specific portions of Matturi (namely, Col. 5, Lines 9 – 17, Col. 7, Lines 21 - 48), asserting that the cited portions of Matturi disclose Appellants' limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3. (See Final Office Action, Pg. 25). Appellants respectfully disagree.

In response, Appellants submit that the cited portions of Matturi fail to teach or suggest this limitation of Appellants' claim 3. The first portion of Matturi cited by the Examiner (namely, Col. 5, Lines 9 – 17) merely states that, when a base station controller detects that it has been provided with identification information on base stations not yet connected to the base station controller, the base station controller transmits frames used for communication with the base stations. The second portion of Matturi cited by the Examiner (namely, Col. 7, Lines 21 - 48) merely describes a process by which a connection between a base station controller and a base station is established. As noted above, the basis of the Examiner's rejection is that the base station controller and base station of Matturi teach the WAN gateway and wireless access point of Appellants' claim 3, respectively. (See Final Office Action, Pgs. 24-25). Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 3, in order for

Matturi to teach this limitation of Appellants' claim 3, Matturi would need to disclose selecting, by a base station, an appropriate base station controller in an instance where more than one service discovery message is received. However, this is not taught or suggested in Matturi. Appellants submit that the cited portions of Matturi are devoid of any teaching or suggestion that a base station controller is selected, much less that a base station controller is selected in an instance when more than one service delivery message is received. Thus, Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 3, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants' claim 3, Matturi still would fail to teach or suggest selecting an appropriate WAN gateway in an instance where more than one service discovery message is received, as claimed in Appellants' claim 3.

Thus, at least for these reasons, Matturi fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

b. *Gray*

Gray fails to teach or suggest the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

Rather, with respect to registration and management of access points, Gray merely states that a network administrator registers at least one wireless access point by entering or discovering information unique to the access point. (See Gray, Col. 5, Lines 62 – 64). Furthermore, with respect to discovery of information, Gray merely states that the airspace management platform 56 discovers functionality and other parameters associated with registered wireless access points and populates a database with information on each registered wireless access point. (See Gray, Col. 6, Lines 13 – 17).

Appellants submit that the airspace management platform 56 of Gray is not a WAN gateway. Gray is devoid of any teaching or suggestion of a WAN gateway and, thus, fails to teach or suggest selection of a WAN gateway by a wireless access point.

Furthermore, even assuming *arguendo* that the airspace management platform 56 of Gray could be interpreted as being a WAN gateway as recited in Appellants' claim 3 (which Appellants maintain that it cannot), Gray does not teach or suggest selection of airspace management platform 56 by a wireless access point and, therefore, still would fail to teach or suggest selection of a WAN gateway by a wireless access point, much less selecting, by a wireless access point, an appropriate WAN gateway where more than one service discovery message is received.

Thus, Gray fails to teach or suggest the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

c. Conclusion

Thus, since Matturi and Gray each fail to teach or suggest the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," a combination of Matturi and Gray (assuming *arguendo* that such a combination is possible) must fail to teach or suggest the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

3. Matturi and Gray, alone or in combination, fail to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway."

a. Matturi

Matturi fails to teach or suggest at least the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner acknowledges that Matturi fails to teach or suggest this limitation of Appellants' claim 3. This is acknowledged in the Claim Rejections section, on Pg. 25, of the Final Office Action, as well in the Response to Arguments section, on Pg. 17 of the Final Office Action.

Furthermore, Appellants previously provided an explanation of the failure of Matturi to teach or suggest this limitation of Appellants' claim 3. Namely, Appellants' basis for the assertion that Matturi fails to teach or suggest this limitation may be found at least on Pgs. 13-14 of Appellants' Response, dated March 19, 2010, to the Office Action, dated January 26, 2010. For purposes of completeness, relevant portions of Appellants' explanation of the failure of Matturi to teach or suggest this limitation of Appellants' claim 3 are provided again below.

First, Appellants submit that Matturi is devoid of any teaching or suggestion of a wireless area network (WAN). Rather, Matturi is directed toward a cellular wireless network. A cellular wireless network, as disclosed in Matturi, is fundamentally different than a wireless area network (WAN), in terms of the types of wireless technology utilized, the types of network elements involved, interaction between network elements, types of backhaul technologies used, and various other characteristics, such that the Examiner's attempted application of the teachings of Matturi to Appellants' claim 3 is improper. As noted above, Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, Appellants submit that Matturi fails to teach or suggest the wireless access point or WAN gateway of Appellants' claim 3, much less the arrangement of Appellants' claim 3 in which an access point registration request is sent to a selected WAN gateway, or the specific wireless access point information of Appellants' claim 3.

Second, Appellants submit that, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants' claim 3 (which Appellants maintain that they cannot), Matturi still would fail to teach or suggest sending, to a selected WAN gateway, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point. In the Final Office Action, the Examiner asserts that the base station controller and base station of Matturi teach the WAN gateway and wireless access point

of Appellants' claim 3, respectively. (See Final Office Action, Pg. 24). Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 3, in order for Matturi to teach this limitation of Appellants' claim 3, Matturi would need to disclose sending, to a selected base station controller, a base station registration request including access point location, IP address, MAC address, radio type, and power level information of a base station. However, this is not taught or suggested in Matturi. Rather, Matturi merely discloses that a base station controller transmits a request message to the base station. Thus, Appellants submit that, based on the Examiner's mapping of the elements of Matturi to Appellants' claim 3, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants' claim 3, Matturi still would fail to teach or suggest sending, to a selected WAN gateway, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Third, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 3 (which, again, Appellants maintain that they cannot), Matturi still would fail to teach or suggest sending, to a selected WAN gateway, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3. Matturi is devoid of any teaching or suggestion of access point location, IP address, MAC address, radio type, and power level information. Rather, Matturi merely includes a general statement indicating that identification information and hardware information is sent from the base station to the base station controller. (See Matturi, Col. 7, Lines 38 – 39). Thus, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 3, Matturi still would fail to teach or suggest sending, to a selected WAN gateway, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Thus, at least for these reasons, Matturi fails to teach or suggest at least the limitation of "sending an access point registration request comprising access point

location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

b. Gray

Gray fails to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

First, Appellants submit that Gray fails to teach or suggest "sending an access point registration request...to said selected WAN gateway," as claimed in Appellants' claim 3.

Rather, with respect to registration and management of access points, Gray merely states that a network administrator registers at least one wireless access point by entering or discovering information unique to the access point. (See Gray, Col. 5, Lines 62 – 64). With respect to discovery of information, Gray merely states that the airspace management platform 56 discovers functionality and other parameters associated with registered wireless access points and populates a database with information on each registered wireless access point. (See Gray, Col. 6, Lines 13 – 17).

Appellants submit that the airspace management platform 56 of Gray is not a WAN gateway. Gray is devoid of any teaching or suggestion of a WAN gateway and, thus, fails to teach or suggest sending an access point registration request to a WAN gateway. Furthermore, even assuming *arguendo* that the airspace management platform 56 of Gray could be interpreted as being a WAN gateway as recited in Appellants' claim 3 (which Appellants maintain that it cannot), Gray does not teach or suggest that a wireless access point sends an access point registration request to airspace management platform 56 and, therefore, still would fail to teach or suggest sending an access point registration request to a selected WAN gateway.

Thus, Gray fails to teach or suggest "sending an access point registration request...to said selected WAN gateway," as claimed in Appellants' claim 3.

Second, Appellants submit that Gray fails to teach or suggest "sending an access point registration request comprising access point location, IP address, MAC address,

radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner cites specific portions of Gray (namely, Col. 5, Lines 60 – 67 and Col. 7, Lines 30-53), asserting that these portions of Gray disclose this limitation of Appellants' claim 3. Appellants disagree.

Appellants submit that the first portion of Gray cited by the Examiner (namely, Col. 5, Lines 60 – 67), which discusses registration and management of access points, merely states that a network administrator registers an access point by entering or discovering information unique to the access point, where the information includes "...BSSID or Wireless MAC address, LAN MAC address, and LAN IP address." This portion of Gray is devoid of any teaching or suggestion of an access point registration request including access point location, IP address, MAC address, radio type, *and* power level information of a wireless access point. Appellants note that although this portion of Gray mentions MAC and IP addresses, this portion of Gray clearly is devoid of any teaching or suggestion of access point location, radio type, or power level information. Thus, the first portion of Gray cited by the Examiner fails to teach or suggest an access point registration request including access point location, IP address, MAC address, radio type, *and* power level information of a wireless access point, as recited in Appellants' claim 3.

Appellants submit that the second portion of Gray cited by the Examiner (namely, Col. 7, Lines 30-53) merely describes configuration of groups in order to simplify administration of wireless LAN functionality, such as where users associated with a "sales" group may configure their wireless client devices to associate with access points having an SSID set to "sales." This portion of Gray is devoid of any teaching or suggestion of an access point registration request or access point location, IP address, MAC address, radio type, and power level information of a wireless access point, much less an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as recited in Appellants' claim 3.

In the Final Office Action, with respect to the "access point location" of Appellants' claim 3, the Examiner asserts that the "access point location" is disclosed at

Col. 6, Lines 46 – 47 of Gray, which discuss latitude and longitude of an access point. (See Final Office Action, Pg. 25 and Pg. 18). Appellants disagree. In response, Appellants note that Appellants' claim 3 is a method for registering a wireless access point in a wireless area network (WAN), including a step of sending an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point. By contrast, the cited portion of Gray merely discloses discovery of functionality associated with wireless access points that have already been registered (i.e., "registered wireless access points"). This is indicated at least at Col. 6, Lines 13 – 17 of Gray. Gray fails to teach or suggest sending a registration request including an access point location during a process for registering a wireless access point. Thus, contrary to the Examiner's assertions, Gray does not teach or suggest sending an access point registration request including access point location information, as claimed within the context of Appellants' claim 3.

In the Final Office Action, with respect to the "radio type" of Appellants' claim 3, the Examiner asserts that the "radio type" is disclosed at Col. 5, Lines 17 – 21 and Col. 6, Line 46 of Gray. (See Final Office Action, Pg. 25 and Pg. 18). Appellants disagree. In response, Appellants submit that neither of the portions of Gray cited by the Examiner teaches or suggests sending an access point registration request including radio type information. The first portion of Gray cited by the Examiner as disclosing radio type information (namely, Col. 5, Lines 17 – 21) merely discloses information associated with a product type of a wireless access point (which Gray defines as being the Manufacturer and Product name of the wireless access point), not the radio type of the radio used by the wireless access point. Furthermore, although the second portion of Gray cited by the Examiner (namely, Col. 6, Line 46) references use of 802.11 technology, this portion of Gray is devoid of any teaching or suggestion that the radio type information of a wireless access point is determined or sent, much less that the radio type information of a wireless access point is sent as part of an access point registration request. Appellants submit that the mere reference to 802.11 technology within the Gray reference simply does not teach or suggest sending an access point registration request including radio type information. Moreover, this portion of Gray suffers from the same deficiency as described above with respect to the access point location (namely, the product type is discovered for a wireless

access point that has already been registered, not during a process for registering a wireless access point). Thus, contrary to the Examiner's assertions, Gray does not teach or suggest sending an access point registration request including radio type information, as claimed within the context of Appellants' claim 3.

In the Final Office Action, with respect to the "power level" of Appellants' claim 3, the Examiner asserts that the "power level" is disclosed by Element 7 FIG. 7B of Gray. (See Final Office Action, Pg. 25 and Pg. 18). Appellants disagree. In response, Appellants submit that the cited portion of Gray fails to teach or suggest sending an access point registration request including power level information. Rather, the cited portion of Gray merely depicts a frame structure having a Power Management field. Gray is devoid of any teaching or suggestion that the Power Management field of the data structure specifies a power level or power level information. Furthermore, although other portions of Gray disclose power level management using history information (see Gray, Col. 12, Lines 6 – 9), these other portions of Gray also fail to teach or suggest sending an access point registration request including power level information. Thus, contrary to the Examiner's assertions, Gray does not teach or suggest sending an access point registration request including power level information, as claimed within the context of Appellants' claim 3.

Thus, Gray fails to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

c. Conclusion

Thus, since Matturi and Gray each fail to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," a combination of Matturi and Gray (assuming *arguendo* that such a combination is possible) must fail to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP

address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

B. The Examiner failed to establish a prima facie case of obviousness of Appellants' claim 3, because the Examiner failed to consider all of the words of Appellants' claim 3 in judging the patentability of Appellants' claim 3.

Appellants note that all words in a claim must be considered in judging the patentability of that claim against the prior art. (See MPEP §2143.03). One cannot divine claim meaning in a vacuum. *Philips v. AWH Corporation* (Fed. Cir. July 12, 2005).

Appellants submit that the Examiner has failed to consider all of the words of Appellants' claim 3 in judging the patentability of Appellants' claim 3.

Namely, the Examiner has failed to consider at least the limitation of "an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point."

In the Claim Rejections section of the Final Office Action, the Examiner initially indicates that the entire limitation is being considered; however, the details of the rejection illustrate that the Examiner does not consider all of the words. Namely, in explaining the rejection, the Examiner states that "Gray does disclose...access point location..., radio type, or power level information...." (See Final Office Action, Pg. 25, Emphasis added). Similarly, in the Response to Arguments section of the Final Office Action, the Examiner states that "Gray does disclose...access point location..., radio type, or power level information...." (See Final Office Action, Pg. 18, Emphasis added). In other words, in each of these sections of the Final Office Action, it is clear that the Examiner fails to list all of the types of access point information listed in Appellants' claim 3 and, further, for the types of access point information that the Examiner does address, the Examiner merely lists them in the alternative rather than considering the claimed embodiment in which the access point registration request includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point.

Thus, the Examiner failed to establish a prima facie case of obviousness of Appellants' claim 3, because the Examiner failed to consider all of the words of Appellants' claim 3 in judging the patentability of Appellants' claim 3.

C. Conclusion

Thus, a combination of Matturi and Gray fails to teach or suggest Appellants' claim 3.

As such, independent claim 3 is patentable over Matturi in view of Gray under 35 U.S.C. 103(a). Furthermore, claims 4-7 depend, directly or indirectly, from independent claim 3, while adding additional elements. Therefore, these dependent claims also are non-obvious and are patentable over Matturi in view of Gray under 35 U.S.C. §103(a) for at least the same reasons discussed above in regards to independent claim 3.

As such, Appellants' claims 3-7 are patentable over Matturi in view of Gray under 35 U.S.C. §103(a). Therefore, the rejection should be withdrawn.

Conclusion

Thus, Appellants submit that all of the claims presently in the application are allowable.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1-7 is improper. Reversal of the rejection of the Office Action is respectfully requested.

Respectfully submitted,

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Eamon J. Wall
Registration No. 39,414
Wall & Tong, L.L.P.
25 James Way
Eatontown, NJ 07724
Telephone: (732) 542-2280 x120
Facsimile: (732) 542-2283
Attorney for Appellant(s)

CLAIMS APPENDIX

1. (previously presented) A method for registering at least one wireless access point in a wireless area network (WAN), comprising:

broadcasting, from a WAN gateway, a discovery message toward said at least one wireless access point in said WAN;

receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point; and

storing said access point registration request information at said WAN gateway.

2. (previously presented) The method of claim 1, wherein each wireless access point selects a random delay prior to sending said access point registration request to said broadcasting WAN gateway.

3. (previously presented) A method for registering a wireless access point in a wireless area network (WAN), comprising:

broadcasting a gateway discovery query message from said wireless access point;

receiving, from at least one WAN gateway, a respective service discovery message;

selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received; and

sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point toward said selected WAN gateway.

4. (previously presented) The method of claim 3, wherein said selecting further comprises:

determining if said wireless access point is currently registered; and

sending said service discovery message to said wireless access point.

5. (previously presented) The method of claim 3, wherein said selecting comprises:

determining an appropriate WAN gateway using at least one of the following: a cost of using a WAN gateway, a load at a WAN gateway, and system features provided by a WAN gateway.

6. (original) The method of claim 3, wherein said sending an access point registration request further comprises sending security information in said access point registration request.

7. (previously presented) The method of claim 6, wherein each wireless access point selects a random delay prior to sending said access point registration request to said WAN gateway.

8. – 32. (cancelled)

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None